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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. 08/950,445 10/15/97 ·KEJHA J JBK-6 **EXAMINER** PM82/1115 JOSEPH B KEJHA VANAMAN, F 1022 FREDERICK RD **ART UNIT** PAPER NUMBER MEADOWBROOK PA 19046 3611 **DATE MAILED:** 11/15/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. 08/950,445

Applicant(s)

Kejha

Examiner

Frank Vanaman

Group Art Unit 3611



| X Responsive to communication(s) filed on May 26, 2000 | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| ☐ This action is FINAL . | · |
| Since this application is in condition for allowance except for for in accordance with the practice under Ex parte Quayle, 1935 C. | |
| A shortened statutory period for response to this action is set to exis longer, from the mailing date of this communication. Failure to rapplication to become abandoned. (35 U.S.C. § 133). Extensions 37 CFR 1.136(a). | respond within the period for response will cause the |
| Disposition of Claims | |
| | is/are pending in the application. |
| Of the above, claim(s) 1-9 and 13-33 | is/are withdrawn from consideration. |
| Claim(s) | is/are allowed. |
| X Claim(s) 10-12 | |
| Claim(s) | |
| ☐ Claims | |
| Application Papers See the attached Notice of Draftsperson's Patent Drawing Recompleted on | to by the Examiner. is approved Xdisapproved. der 35 U.S.C. § 119(a)-(d). the priority documents have been er) ernational Bureau (PCT Rule 17.2(a)). |
| Attachment(s) Notice of References Cited, PTO-892 Information Disclosure Statement(s), PTO-1449, Paper No(s) Interview Summary, PTO-413 Notice of Draftsperson's Patent Drawing Review, PTO-948 Notice of Informal Patent Application, PTO-152 | l• |
| SEE OFFICE ACTION ON THE | FOLLOWING PAGES |

Application/Control Number: 08/950,445 Page 2

Art Unit: 3611

Status of Application

1. Claims 1-33 are pending, claims 1-9 and 13-33 having been withdrawn from consideration as directed to non-elected inventions, claim 34 having been canceled. An Office action on the merits of claims 10-12 follows.

2. In view of the appeal brief filed on May 26, 2000 and Aug. 31, 2000, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (a) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (b) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

- 3. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
- 4. Two changes requested by applicant's amendment to the specification, filed Oct 12, 1999 have not been entered as requested. The request to enter -a- on line 24 of page 19 has not been entered because no particular location is specified. The request to make certain changes to line 4 of page 23 has been entered instead on line 5 of that page in view of both "and" and "said" appearing on that line.

Drawings

5. The proposed drawing correction filed on Oct. 12, 1999 has been disapproved because it is not in the form of a pen-and-ink sketch showing changes in red ink or with the changes otherwise highlighted. See MPEP § 608.02(v).

Page 3

Application/Control Number: 08/950,445

Art Unit: 3611

Claim Rejections - 35 USC § 103

- 6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over West (US 3,517,766) in view of Minami et al. (US 5,462,021, filed 03/1993; 07/1994). West teaches a passenger vehicle which rides on 1-4 wheels (2r, 2f), and at least 2 wheels, as broadly claimed, having a body (1) an internal combustion engine (14) which is not sealed from the atmosphere, a pair of generators (16, 17) driven by the engine, a battery (10) connected to the generators and motor (11), the electric motor (11) connected to both the battery and generators, the motor for driving the vehicle, wherein the vehicle is further provided with a steering system (6, 7). The reference of West fails to teach the internal combustion engine as being fueled by hydrogen obtained from an on-board storage system.

Minami teaches a vehicle (109) which is provided with an internal combustion engine (1) which is fueled by hydrogen which is obtained from an on-board storage system (2), the use of a hydrogen engine being preferred in view of the well known "clean" emission properties of hydrogen engines (col. 1, lines 16-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the internal combustion engine and fuel source of the vehicle of West with a hydrogen engine and fuel supply as taught by Minami et al. for the purpose of greatly reducing vehicle emissions, as specifically taught by Minami.

8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over West (US 3,517,766) in view of Munday (US 5,143,025). West teaches a vehicle riding on 1-4 wheels, having a body, an internal combustion engine which is not sealed from the atmosphere, a pair of generators driven by the engine, a battery connected to the generators and motor, the electric motor connected to both the battery and generators, the motor for driving the vehicle, wherein the vehicle is further provided with a steering system. The reference of West fails to teach the engine as being powered by hydrogen, the hydrogen being obtained through the electrolysis of water

Page 4

Application/Control Number: 08/950,445

Art Unit: 3611

from a generating cell, and not stored under pressure, the cell electrically connected to the generators and battery.

Munday teaches a very low emission (col. 1, lines 1-31) vehicle engine (10) operated on a hydrogen fuel from hydrogen obtained from a hydrogen storage element (16) which directly feeds hydrogen generated by electrolysis of water in a cell (36, 40, note col. 3, lines 5-20), to the engine and does not store the hydrogen under pressure, the cell being electrically connected (58, 64) to a source of electricity. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the engine and fuel source of he vehicle of West with a hydrogen engine and fuel supply as taught by Munday for the purpose of greatly reducing vehicle emissions, as specifically taught by Munday.

The reference of Munday fails to specifically teach that the electric supply be from both a generator and a battery, however, in view of the vehicle of West featuring both a battery and a pair of generators, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow selective connection of the generating cell of Munday to either electricity source (i.e., the battery and/or generators), for the purpose of allowing the cell to be operative under circumstances wherein one or the other of the sources is not in operation.

Response to Arguments

- 9. Applicant's comments filed with the Appeal Brief concerning the combination of references previously employed are noted. An error on the part of the examiner in the interpretation of the claims is being corrected in this office action, the examiner apologizes for any confusion associated with the newly cited art.
- 10. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed

Application/Control Number: 08/950,445

Art Unit: 3611

invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that the references must explicitly provide a suggestion for combining, a conclusion of obviousness may be made from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference (see *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)), with skill being presumed on the part of the artisan, rather than the lack thereof (see *In re Sovish* 769 F.2d 738, 742, 226 USPQ 771, 774 (Fed. Cir. 1985)).

The examiner agrees that the West reference fails to teach the provision of a hydrogen fueled engine, and it is for this reason that the Minami et al. and Munday references have been employed in combination, note that both specifically teach the use of a hydrogen-fueled engine for the purpose of reducing pollution, and the combinations set forth replace West's higher-emission internal combustion engine with the hydrogen-fueled engine and hydrogen generation system of substantially lower emissions.

As regards the various interconnections with the electrolysis device and batteries and/or a generator, it is not considered beyond the skill of the ordinary practitioner in the art to allow both generators and batteries in hybrid vehicles to power an electrical device, the generator being functional, for example when an engine is running (or when the generator is in use to generate a braking force), the batteries being functional, for example, when the engine is not running but the electrical device is in operation.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tangri (US 4,085,709), Billings et al. (US 4,253,428), and Brinkley, III (US 5,085,176) teach hydrogen-fuel systems for vehicles.

Art Unit: 3611

12. Applicant is reminded that claims 1-9 and 13-33 are withdrawn from consideration and have not been treated in this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Vanaman whose telephone number is (703) 308-0424. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

Assistant Commissioner for Patents Washington, DC 20231

or faxed to:

(703) 305-3597 or 305-7687 (for formal communications intended for entry; informal or draft communications may be faxed to the same number but should be clearly labeled "UNOFFICIAL" or "DRAFT")

FRANK B. VANAMAN Patent Examiner Art Unit 3611

Frank Vanaman November 13, 2000

FIB 11/13/00